

## IN THE CLAIMS

1. (Currently amended) A method for testing an echo canceller, comprising:  
generating an excitation signal including a preamble portion and a test portion;  
encoding the preamble portion with configuration information relating to the echo  
canceller; ~~and~~  
transmitting the excitation signal to the echo canceller; and  
measuring a combined loss a predetermined time before receiving the test portion.
2. (Original) The method of claim 1 including taking a performance  
measurement responsive to the preamble portion.
- 3 (Canceled)
4. (Original) The method of claim 1 including encoding instructions in the  
preamble portion that when executed by the echo canceller result in inhibiting adaptation and  
clearing a register in the echo canceller.
5. (Currently amended) ~~The method of claim 1 including~~ A method for testing  
an echo canceller, comprising:  
generating an excitation signal including a preamble portion and a test portion;  
encoding the preamble portion with configuration information relating to the echo  
canceller;  
transmitting the excitation signal to the echo canceller; and  
encoding instructions in the preamble portion that when executed by the echo  
canceller result in disabling a processor in the echo canceller.
6. (Original) The method of claim 1 including encoding a test identifier in the  
preamble portion.
7. (Currently amended) ~~The method of claim 1 including~~ A method for testing  
an echo canceller, comprising:  
generating an excitation signal including a preamble portion and a test portion;

encoding the preamble portion with configuration information relating to the echo canceller;

transmitting the excitation signal to the echo canceller; and  
encoding a test signal identifier in the preamble portion.

8. (Original) The method of claim 1 including encoding the preamble portion in such a way as to be capable of being differentiated from the test portion.

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9. (Currently amended) A method of testing an echo canceller, comprising:  
receiving an excitation signal including a preamble portion and a test portion;  
decoding the preamble portion; and  
controlling the echo canceller during testing responsive to the decoded preamble portion; and  
measuring a combined loss a predetermined time before receiving the test portion.

10. (Original) The method of claim 9 including:  
inhibiting adaptation in the echo canceller responsive to the preamble portion; and  
clearing a register in the echo canceller responsive to the preamble portion.

11. (Currently amended) ~~The method of claim 9 including~~ A method of testing an echo canceller, comprising:  
receiving an excitation signal including a preamble portion and a test portion;  
decoding the preamble portion;  
controlling the echo canceller during testing responsive to the decoded preamble portion; and  
disabling a processor in the echo canceller responsive to the preamble portion.

12. (Original) The method of claim 9 including identifying a test to be performed on the echo canceller responsive to the preamble portion.

13. (Currently amended) ~~The method of claim 9 including~~ A method of testing an echo canceller, comprising:  
receiving an excitation signal including a preamble portion and a test portion;  
decoding the preamble portion;

controlling the echo canceller during testing responsive to the decoded preamble portion; and

identifying a type of test signal responsive to the preamble portion.

14. (Original) The method of claim 9 including differentiating the preamble portion from the test portion.

15. (Original) The method of claim 9 including controlling the echo canceller during testing to within a single sample time of the excitation signal.

16. (Original) The method of claim 15 including controlling the echo canceller during testing to within 125 microseconds.

17. (Canceled)

18. (Currently amended) The system of claim ~~17~~ 20 including:  
tail circuit emulating means for generating an echo back signal responsive to the test portion of the excitation signal; and  
recording means for recording any received echo signal allowed to pass through the echo canceller.

19. (Currently amended) The system of claim ~~17~~ 20 wherein the preamble portion sets timing associated with performance tests defined in ITU-T G.165 and G.168 standards.

20. (Currently amended) ~~The system of claim 17~~ A system for testing an echo canceller, comprising:

signal generating means for generating an excitation signal including a preamble portion and a test portion; and

controller means for controlling the echo canceller during testing according to the preamble portion;

wherein the preamble portion identifies a type of test portion.

21. (Currently amended) The system of claim ~~17~~ 20 wherein the preamble portion identifies a performance test.

22. (Currently amended) The system of claim ~~17~~ 20 wherein the preamble portion is a correlated pulse code modulated sequence capable of being differentiated from the test portion of the excitation signal.

23. (Currently amended) A system for testing an echo canceller, comprising:  
signal receiving means for receiving an excitation signal including a preamble portion and a test portion; and  
decoding means for obtaining configuration information by decoding the preamble portion including identifying a test type in the test portion.

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24. (Currently amended) ~~The system of claim 23~~ A system for testing an echo canceller, comprising:  
signal receiving means for receiving an excitation signal including a preamble portion and a test portion; and  
decoding means for obtaining configuration information by decoding the preamble portion;

wherein the echo canceller includes an H-register and a non-linear processor; and  
wherein the configuration information includes any of the following:  
instructions related to the management of the H-register;  
instructions related to the management of the non-linear processor;  
instructions related to an adaptation function in the echo canceller; and  
timing information related to any of the aforementioned instructions.

25. (Original) The system of claim 23 wherein the decoding means differentiates the preamble portion from the test portion.

26. (Canceled)

27. (Currently amended) The system of claim ~~26~~ 29 including:  
a tail circuit emulating for generating an echo back signal responsive to the test portion of the excitation signal; and  
a recorder for recording any received echo signal allowed to pass through the echo canceller.

28. (Currently amended) The system of claim ~~26~~ 29 wherein the preamble portion sets timing associated with performance tests defined in ITU-T G.165 and G.168 standards.

29. (Currently amended) ~~The system of claim 26~~ A system for testing an echo canceller, comprising:  
a signal generator for generating an excitation signal including a preamble portion and a test portion; and  
a controller for controlling the echo canceller during testing according to the preamble portion;  
wherein the preamble portion identifies a type of test portion.

30. (Currently amended) The system of claim ~~26~~ 29 wherein the preamble portion identifies a performance test.

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31. (Currently amended) ~~The system of claim 26~~ A system for testing an echo canceller, comprising:  
a signal generator for generating an excitation signal including a preamble portion and a test portion; and  
a controller for controlling the echo canceller during testing according to the preamble portion;  
wherein the preamble portion is a correlated pulse code modulated sequence capable of being differentiated from the test portion of the excitation signal.

32. (Canceled) without prejudice.

33. (Currently amended) The echo canceller of claim ~~32~~ 35 wherein the decoder differentiates the preamble portion from the test portion.

34. (Currently amended) The echo canceller of claim ~~32~~ 35  
wherein the decoder extracts control information from the preamble portion and  
wherein the controller controls the echo canceller responsive to the control information.

35. (Currently amended) ~~The echo canceller of claim 32~~ An echo canceller, comprising:  
a receiver for receiving an excitation signal including a preamble portion and a test portion; and  
a decoder for decoding the preamble portion, the decoded preamble portion configuring the echo canceller during testing;  
wherein the preamble portion identifies the test portion.

36. (Currently amended) The echo canceller of claim 32 35 wherein the preamble portion identifies a test to be performed on the echo canceller.

37. (Canceled)

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38. (Currently amended) ~~The computer readable medium of claim 37 including A~~ computer readable medium having stored thereon instructions, that, when executed by a computing device, result in:  
generating an excitation signal having a preamble portion and a test portion;  
controlling an echo canceller responsive to the preamble portion; and  
measuring a performance parameter a predetermined time before application of the test portion.

39. (Currently amended) ~~The computer readable medium of claim 37 including A~~ computer readable medium having stored thereon instructions, that, when executed by a computing device, result in:  
generating an excitation signal having a preamble portion and a test portion;  
controlling an echo canceller responsive to the preamble portion; and  
measuring a combined loss a predetermined time before receiving the test portion.

40. (Currently amended) The computer readable medium of claim 37 38 including encoding information identifying a type of test in the preamble portion.

41. (Currently amended) ~~The computer readable medium of claim 37 including A~~ computer readable medium having stored thereon instructions, that, when executed by a computing device, result in:

generating an excitation signal having a preamble portion and a test portion;  
controlling an echo canceller responsive to the preamble portion; and  
encoding information identifying a type of test portion in the preamble portion.

42. (Currently amended) The computer readable medium of claim ~~37~~ 38 including encoding the preamble portion such that it is distinguishable from the test portion.

43. (Canceled)

44. (Currently amended) The computer readable medium of claim ~~43~~ 45 including:  
inhibiting adaptation in the echo canceller responsive to the preamble portion; and  
clearing a register in the echo canceller responsive to the preamble portion.

45. (Currently amended) ~~The computer readable medium of claim 43 including A~~  
computer readable medium having stored thereon instructions, that, when executed by a  
computing device, result in:

receiving an excitation signal including a preamble portion and a test portion;  
decoding the preamble portion, the preamble portion configuring the echo canceller  
during testing; and  
disabling a processor in the echo canceller responsive to the preamble portion.

46. (Currently amended) The computer readable medium of claim ~~43~~ 45 including identifying a test to be performed on the echo canceller responsive to the preamble portion.

47. (Currently amended) ~~The computer readable medium of claim 43 including A~~  
computer readable medium having stored thereon instructions, that, when executed by a  
computing device, result in:

receiving an excitation signal including a preamble portion and a test portion;  
decoding the preamble portion, the preamble portion configuring the echo canceller  
during testing; and  
identifying a type of test signal responsive to the preamble portion.

48. (Currently amended) The computer readable medium of claim 43 45 including differentiating the preamble portion from the test portion.

49. (new) The method of claim 5 including taking a performance measurement responsive to the preamble portion.

50. (new) The method of claim 5 including encoding instructions in the preamble portion that when executed by the echo canceller result in inhibiting adaptation and clearing a register in the echo canceller.

51. (new) The method of claim 5 including encoding a test identifier in the preamble portion.

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52. (new) The method of claim 5 including encoding the preamble portion in such a way as to be capable of being differentiated from the test portion.

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53. (new) The method of claim 5 including measuring a combined loss a predetermined time before receiving the test portion.

54. (new) The method of claim 9 including disabling a processor in the echo canceller responsive to the preamble portion.

55. (new) The method of claim 9 including identifying a type of test signal responsive to the preamble portion.

56. (new) The method of claim 11 including:  
inhibiting adaptation in the echo canceller responsive to the preamble portion; and  
clearing a register in the echo canceller responsive to the preamble portion.

57. (new) The method of claim 11 including identifying a test to be performed on the echo canceller responsive to the preamble portion.

58. (new) The method of claim 11 including identifying a type of test signal responsive to the preamble portion.

AMENDMENT

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59. (new) The method of claim 11 including differentiating the preamble portion from the test portion.

60. (new) The method of claim 11 including controlling the echo canceller during testing to within a single sample time of the excitation signal.

61. (new) The method of claim 61 including controlling the echo canceller during testing to within 125 microseconds.

62. (new) The system of claim 23 wherein the decoding means:  
inhibits adaption in the echo canceller responsive to the preamble portion; and  
clears a register in the echo canceller responsive to the preamble portion.

63. (new) The system of claim 23 wherein the decoding means disables a processor in the echo canceller responsive to the preamble portion.

64. (new) The system of claim 23 wherein the decoding means controls the echo canceller during testing to within a single sample time of the excitation signal.

65. (new) The system of claim 66 wherein the decoding means controls the echo canceller during testing to within 125 microseconds.

66. (new) The system of claim 31 including:  
a tail circuit for generating an echo back signal responsive to the test portion of the excitation signal; and  
a recorder for recording any received echo signal allowed to pass through the echo canceller.

67. (new) The system of claim 31 wherein the preamble portion sets timing associated with performance tests defined in ITU-T G.165 and G.168 standards.

68. (new) The system of claim 31 wherein the preamble portion identifies a type of test portion.

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69. (new) The system of claim 31 wherein the preamble portion identifies a performance test.

70. (new) The computer readable medium of claim 38 including measuring a combined loss a predetermined time before receiving the test portion.

71. (new) The computer readable medium of claim 39 including encoding information identifying a type of test portion in the preamble portion.

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72. (new) The computer readable medium of claim 45 including identifying a type of test signal responsive to the preamble portion.

73. (new) The computer readable medium of claim 47 including:  
inhibiting adaptation in the echo canceller responsive to the preamble portion; and  
clearing a register in the echo canceller responsive to the preamble portion.

74. (new) The computer readable medium of claim 47 including identifying a test to be performed on the echo canceller responsive to the preamble portion.

75. (new) The computer readable medium of claim 47 including differentiating the preamble portion from the test portion.